Claims

- 1. A constant velocity joint in the form of counter-track joint having the following characteristics:
 - an outer joint part (12) which comprises a first longitudinal axis (L_A) as well as an attaching end and an aperture end which are positioned axially opposite one another, and which comprises first outer ball tracks (22) and second outer ball tracks (24),
 - an inner joint part (13) which comprises a second longitudinal axis ($L_{\rm I}$) and attaching means for a shaft (17) pointing towards the aperture end of the outer joint part (12), and which comprises first inner ball tracks (23) and second inner ball tracks (25),
 - the first outer ball tracks (22) and the first inner ball tracks (23) form first pairs of tracks (22,23) which receive first balls (14),
 - the second outer ball tracks (24) and the second inner ball tracks (25) form second pairs of tracks (24, 25) which receive second balls (15),
 - a ball cage (28) is positioned between the outer joint part (12) and the inner joint part (13) and comprises circumferentially distributed first cage windows (18) each accommodating one of the first balls (14) and second circumferentially distributed cage windows (19) each accommodating one of the second balls (15),
 - when the joint is in the aligned condition, the first pairs of tracks (22, 23) widen from the aper-

ture end to the attaching end and, when the joint is in the aligned condition, the second pairs of tracks (24, 25) widen from the attaching end to the aperture end,

- the circumferential length (L1) of the first cage windows (18) for the balls (14) in the first pairs of tracks (22, 23) is greater than the circumferential length (L2) of the second cage windows (19) for the second balls (15) in the second pairs of tracks (24, 25).

2. A joint according to claim 1,

characterised in

that the first pairs of tracks (22, 23) and the second pairs of tracks (24, 25) are arranged so as to alternate across the circumference.

3. A joint according to claim 1,

characterised in

that pairs of first pairs of tracks (22, 23) and pairs of second pairs of tracks (24, 25) are arranged so as to alternate across the circumference.

4. A joint according to any one of claims 1 to 3,

characterised in

that at the attaching end of the outer joint part (12), there is provided a joint base (20) with an attaching journal.

5. A joint according to any one of claims 1 to 3,

characterised in

that at the attaching end of the outer joint part, there is provided a flange face and a second aperture.

6. A joint according to any one of claims 1 to 5,

characterised in

that the joint comprises an even number of at least four balls (14, 15).

7. A method of assembling a joint according to any one of claims 1 to 6,

characterised in

that first the first balls (14) are inserted one after the other through the first cage windows (18) in the joint over-articulated by a first angle α_1 and that thereafter the second balls (15) are inserted one after the other through the second cage windows (19) in the joint over-articulated by a smaller angle α_2 .